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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number: 07977-270001
I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop AF, Commissioner for Patents, Box 1450, Alexandria, VA 22313-1450. _____ Date of Deposit _____ Signature _____ Typed or Printed Name of Person Signing Certificate	Application Number 09/820,520	Filed March 28, 2001
	First Named Inventor Masato Yonezawa et al.	
	Art Unit 1763	Examiner Luz L. Alejandro

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☒ attorney or agent of record 37,640
(Reg. No.)

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34

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December 30, 2005
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below'.

☒ Total of 5 pages are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Masato Yonezawa et al. Art Unit : 1763
Serial No. : 09/820,520 Examiner : Luz L. Alejandro
Filed : March 28, 2001 Confirmation No.: 5433
Title : PLASMA CVD DEVICE AND DISCHARGE ELECTRODE

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Pursuant to United States Patent and Trademark Office OG Notices: 12 July 2005 - New Pre-Appeal Brief Conference Pilot Program, a request for a review of identified matters on appeal is hereby submitted with the Notice of Appeal. Review of these identified matters by a panel of examiners is requested because the rejections of record are clearly not proper and are without basis, in view of a clear legal or factual deficiency in the rejections. All rights to address additional matters on appeal in any subsequent appeal brief are hereby reserved.

Claims 1-4, 6-14 and 20-34 are pending, with claims 1, 10, 22, and 30 being independent. Claims 1-4, 6-14, 26 and 27 have been rejected as being unpatentable over the admitted prior art in view of Izu (U.S. Patent No. 4,410,558). Claims 20-25 and 28-34 have been rejected as being unpatentable over admitted prior art in view of Izu, Komino (U.S. Patent No. 6,156,151) and Yamazaki (U.S. Patent No. 4,808,553). Applicant requests withdrawal of these rejections.

Applicant specifically asks the panel to review the issues highlighted below.

There would have been no motivation to combine the admitted prior art with Izu, Komino and Yamazaki in the manner set forth in the rejection.

Claim 1, for example, is directed to a plasma CVD apparatus that includes a vacuum chamber; an exhaust means for exhausting gas from the vacuum chamber to an outside; an electrode for supplying electric energy inside the vacuum chamber; and a support that supports a substrate opposing the electrode as the substrate is moved in a first direction through the chamber. The apparatus also includes an introducing port for gas that is located between the

electrode and the substrate such that gas is introduced into the chamber in a direction parallel with the first direction so that a flow of gas is rectified in a direction away from a film formation surface of the substrate. Claim 1 further recites that openings are located on a surface of the electrode opposing the substrate, and that the gas is exhausted from the openings to the outside of the vacuum chamber.

The admitted prior art shows directing a gas toward the substrate through openings in a electrode (Figs. 2A and 2B and page 3, line 16 to page 4, line 3) or passing the gas along the surface of a substrate (Fig. 3 and page 4, line 24 to page 5, line 15). When the gas is passed along the surface of the substrate, the admitted prior art notes that, due to turbulence, gas flows toward the surface of the substrate (see page 5, lines 1-5). Thus, the admitted prior art does not show the recited gas supply or exhaust structure arranged such that gas is introduced in a direction parallel to the direction that the substrate the flow of gas is rectified away from a film formation surface of the substrate.

Recognizing this failure of the admitted prior art, the rejection turns to Izu, which shows manifolds 52 that introduce gas in a direction perpendicular to a direction in which the substrate moves, and an exhaust port 56 that exhausts the gas through openings in an electrode 58. Thus, Izu, like the admitted prior art, does not describe or suggest introducing the gas in a direction parallel to a direction in which the substrate moves.

a. The rejection does not provide sufficient motivation for combining Izu and the admitted prior art.

The rejection notes that the motivation to combine the admitted prior art with Izu would have resulted from a desire to have the resulting structure allow for a "uniform distribution of the gas across the entire substrate" and to "maintain a uniform flow of the gas." However, neither Izu nor the admitted prior art indicates that such benefits would result from introducing gas in a parallel direction or exhausting gas from openings in the electrodes, and accordingly, the desire for such benefits cannot be used as a motivation to combine the references to produce a system including those features. (While Izu mentions a desire for uniform gas flow at col. 5, lines 17-20, Izu also states that this desire is met by including a large number of feed apertures.) Accordingly, the rejections should be withdrawn for at least this reason.

b. The rejection ignores the failure of both Izu and the admitted prior art to describe or suggest parallel introduction in the manner recited in the claims.

In response to applicant's prior arguments that none of the cited prior art describes or suggests introducing the gas into the chamber "in a direction parallel with said first direction so that a flow of said gas is rectified in a direction away from a film formation surface of the substrate," the Examiner asserts that the applicant has merely recognized another advantage which would flow naturally from following the suggestion of the prior art, and that this cannot be the basis for patentability when the differences would otherwise be obvious. Applicant respectfully disagrees with this conclusion, as there is no suggestion in the prior art to introduce the gas in a direction parallel with the first direction **and** so that a flow of gas is rectified in a direction away from a film formation surface of the substrate. As has been noted, this feature is advantageous in that the fine particles and fragmented particles are not deposited onto the film formation surface. Izu describes a system in which gas is introduced in a direction normal to the first direction. The admitted prior art describes as problematic a system in which the gas is introduced in a direction parallel to the first direction. As such, nothing in the admitted prior art or Izu would have led one of ordinary skill in the art to modify Izu's approach to adopt parallel gas introduction, let alone to rectify a flow of gas in a direction away from the film formation surface. Accordingly, the rejections should be withdrawn for at least this reason.

c. Izu is directed to different type of system than that of the admitted prior art and the other references and, as such, would not be readily combined with those references.

Izu is directed to a multi-chamber system. In the "Background of the Invention," Izu criticizes single chamber systems, noting that using a single chamber results in undesirable restrictions in "the optimization and manufacturing speed of the finished structure device." Izu further notes that performing the production of multilayer devices including adjacent layers of differing material types in a single chamber requires complex control apparatus and time consuming techniques, as well as added intermediate evacuation steps to avoid cross contamination. Izu, in the "Summary of the Invention," then goes on to describe the advantages of using multiple chambers.

By contrast, each of the admitted prior art, Komino and Yamazaki involves using a single chamber to perform multiple process steps that are performed in multiple chambers of Izu. Accordingly, since Izu is directed to a type of process that differs from that of the admitted prior art, Komino and Yamazaki, there would have been no motivation to combine the references in the manner set forth in the rejection. Accordingly, the rejections should be withdrawn for at least this reason.

The fees in the amount of $1400 for the second and third month extension of time fee ($900) and the notice of appeal fee ($500) are being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: December 30, 2005

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